



High Performance Switching:

- + 24 Ports of 802.3af PoE (15.4 Watts/Port)
- + Stack Up to 6 Units per Stack
- + D-Link Safeguard Engine
- + Automatic Voice Packet Prioritization
- + Optional Redundant Power Support
- + 802.1d Standard Spanning Tree
- + 802.1w Rapid Spanning Tree
- + 802.1s Multiple Spanning Tree
- + 802.3ad Link Aggregation (LACP)

Advanced Standards-based Enterprise Features:

- + 802.1p Priority (4 Queues)
- + DiffServ QoS
- + 802.1x (Port-Based Authentication)
- + 802.1Q VLANs (Up to 256 Groups)
- + IGMP Snooping
- + RADIUS Authentication
- + TACACS+
- + Access Control List
- + Port Mirroring (1 to many)
- + SNMP
- + DoS Prevention

Network Management:

- + Console
- + Telnet
- + SNMP v1/v2c/v3
- + RMON (4 Groups)
- + Web GUI
- + Industry Standard CLI
- + SYSLOG
- + SSH v2
- + SSL v1/v2/v3

Managed 24-Port 10/100 Stackable L2 PoE Switch, 4 Gigabit Copper Ports, 2 Combo SFP

The D-Link xStack DES-3228PA Switch is designed to provide Power Over Ethernet (PoE) technology convergence with traditional Layer 2 data access switching, emphasizing on security, performance, and resiliency. Featuring the latest stacking technology from D-Link, the xStack DES-3228PA can stack up to 6 units, providing up to 150 ports under single IP management. It provides 24 built-in 10/100Mbps ports and 4 Gigabit copper ports, including two combo SFP slots for easy, flexible connection to fiber-based Gigabit or 100BASE-FX media. All 24 10/100 ports are PoE-enabled and are capable of providing up to 15.4 Watts per port. With the optional redundant power supply, DES-3228PA is an ideal solution for deployment at the edge of the network for today's multimedia applications.

Advanced Security

The DES-3228PA is equipped to handle many of today's emerging security vulnerabilities previously delegated to only stand-alone firewalls. It incorporates the D-Link Safeguard Engine, which consists of built-in ACLs for filtering out such threats as Denial of Service (DoS) attacks, Trojan Horses, Worms, and more. The D-Link Safeguard Engine also protects the xStack switch against attacks on its CPU, ensuring maximum utilization. Other access rules can also be set up to restrict network access and 802.1x authentication can be used to verify user identity. In addition, port-based security can also be set up to protect the integrity of a network.

Enhanced QoS

The D-Link xStack DES-3228PA also supports a robust CoS/QoS, supporting 4 priority queues for 802.1p/ToS DiffServ, with classification and marking based on MAC SA/DA, IP SA/DA, and/or TCP/UDP. It also provides extensive support for GARP/GVRP, 802.1Q, and port-based VLANs for up to 256 groups per device.

High Availability

The D-Link xStack DES-3228PA supports "Shortest-Path" switching, which improves resiliency, uptime, and network efficiency. It also supports an optional Redundant Power Supply. For increased reliability and scalability, the DES-3228PA supports 802.3ad Link Aggregation and 802.1w Rapid Spanning Tree.

Network Management

The DES-3228PA features a variety of network management options including console CLI, Telnet, Web GUI, SNMPv1/v2/v3, and RMON. With a variety of advanced traffic management options including Bandwidth Control, Broadcast Storm Control, Private VLANs, and support for IGMP Snooping your network will be more efficient and manageable. D-Link exclusive Distributed Network Architecture (DNA) stacking technology is also supported, which allows up to 6 D-Link DES-3228PA switches to be stacked together and managed as a single unit, regardless of the physical environment or location.

Power over Ethernet PoE 802.3af

Wherever the location—factory, warehouse, campus, small office, or enterprise facility—the challenge and cost of running power to difficult-to-reach locations in order to meet network design can become a disruption to businesses and a drain on resources. To solve this problem, the DES-3228PA is equipped with 24 10/100BASE-TX ports that support the IEEE 802.3af PoE protocol. The DES-3228PA is designed to inject up to 15.4 Watts of power per port on all 24 RJ-45 ports for a total of up to 370 Watts of available power to support IP Phones, Access Points, Cameras, and more. For devices that are not 802.3af compliant, the D-Link DWL-P50 PoE adapter can be used to supply power to the device making it fully compatible with any 802.3af compliant switch.



Managed 24-Port 10/100 Stackable L2 PoE Switch, 4 Gigabit Copper Ports, 2 Combo SFP

Technical Specifications

Product specifications

DES-3228PA	Stackable Managed Layer 2 Switch with 24-Port 10/100Mbps with PoE, 4 Gigabit Copper Ports and 2 Combo SFP Uplinks
Physical Descriptions	24 10/100Mbps of 802.3af PoE (15.4 Watts/Port)
	Auto Negotiation of Speed
	Auto Negotiation of Duplex Modes
	Auto MDI/MDIX
	Flow Control
	Back Pressure
	MAC-based Port Security
MAC Address Table	8,000
Aggregated Bandwidth	12.8Gbps
Transmission Method	Store-and-Forward
VLANs	Support up to 256 VLAN Groups (Port-Based, 802.1Q/GARP/GVRP)
	Guest VLANs, Unauthenticated VLANs, PVE, Q-in-Q
Classification QoS/ACLS	MAC-based ACLs and IP-based ACLs, 802.1P (4 queues), DSCP, WRR/Strict Priority
Link Aggregation	Trunking, LACP
Multicast Support	IGMP Snooping, MAC Multicast Filtering System-wide, Static Multicast Groups
Rate Limiting	Egress filtering (Shaping), Ingress Filtering, Packet Storm Control
Safeguard Engine	DoS, Trojan Horse, CPU DoS Protection
Spanning Tree	802.1d STP, 802.1w RSTP, 802.1s MSTP, STP Fast Link Option, STP root guard
Jumbo Frames Support	Up to 1632 Bytes

Interface Options

RJ-45	10BASE-T, 100BASE-TX, & 1000BASE-T
LC	With Optional Standard Small Form-Factor Pluggable (SFP) Transceivers
RPS	Redundant Power Supply

Network Management

In Band & Out of Band	Console/CLI, Telnet, SNMP v1/v2c/v3, RMON(4 Groups), Web GUI, SYSLOG, SSH2, SSL v1/v2c/v3, Port Mirroring, DHCP Client, DHCP BootP, Ping facility, SNTP, Traceroute, DNS Client, Password Recovery, BootP/DHCP Relay Agent
IEEE	802.3 Ethernet, 803.2u Fast Ethernet, 802.3ab Gigabit Ethernet, 802.3ad Link Aggregation (6 groups, 8 ports per max), 802.3af PoE Protocol, 802.3z Gigabit Ethernet, 802.3x Flow Control, 802.1d Spanning Tree Protocol, 802.1s Multiple Spanning Tree Protocol, 802.1w Rapid Spanning Tree Protocol, 802.1p Priority Tags, 802.1Q VLANs, 802.1x Port-based Authentication, 802.1x MAC-based Authentication, BPDU filter
IETF	RFC 1157 SNMP, RFC 1112/2236 IGMP v1/v2, RFC 1757 RMON (4 Groups), RFC 1493 Bridge MIB, RFC 1213 MIB II, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, Diffserv

Electrical & Emissions Summary

Emissions	CSA, FCC Class A
Power Supply	100-240VAC, 50/60 Hz Internal Universal



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Safety Agency Certifications and Environmental

Safety	CSA
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Physical Specifications

Dimensions (W x D x H)	17.25in x 12.01in x 1.74in (444mm x 305mm x 44mm)
Height	1.0U height
Weight	14.33lbs (6.5kg)
Temperature	Operating: 32° to 122°F (0° to 50°C)
	Storage: -4° to 149°F (-10° to 65°C)
Humidity	Operating: 10% ~ 85% RH, Non-condensing
	Storage: 0% ~ 95% RH, Non-condensing

Warranty Information

Warranty	Limited Lifetime Warranty ¹
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Ordering Information

<u>Part Number</u>	<u>Description</u>
DES-3228PA	Stackable Managed Layer 2+ Switch with 24-Port 10/100Mbps with PoE, 4 Gigabit Copper Ports and 2 Combo SFP Uplinks
DEM-310GT	1000BASE-LX SFP Transceiver, Up to 10km
DEM-311GT	1000BASE-LX SFP Transceiver, Up to 550km
DEM-211	100BASE-FX Multi-Mode LC SFP Transceiver, Up to 2Km
DPS-600	Redundant Power Supply Unit 500 Watt RPSU

¹ Limited Lifetime Warranty available in the USA and Canada only.